

**OPERATION
&
MAINTENANCE
MANUAL**

RRC760

With Receptacle

**Refrigerant Technologies, Inc.
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RRC760

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CONGRATULATIONS: You have purchased one of the finest R134a Recovery, Recycling, and Charging Machines available at any price.

Fill out and return the Warranty Card within 90 days to activate warranty and free technical service.

BEFORE USING THE RRC760

Check for any shipping damage. Place a claim with carrier if damage is discovered.

DO NOT USE A DAMAGED UNIT.

Complete and return the Warranty Card to activate technical support service and warranty coverage.

Warranty claims can not be honored without this warranty card on file.

The RRC760 should not be operated or serviced by any person who has not read all the contents of this manual. Failure to read and comply with these instructions or any one of the limitations noted herein can result in serious injury and/or property damage.

These general instructions deal with the normal operation and maintenance situations encountered with the RRC760. The instructions should not be interpreted to anticipate every possible contingency.

It is the responsibility of the owner/user to operate the RRC760 in accordance with all specifications and laws which may apply.

The following pages contain rules for safe operation of the RRC760. Taking precedence over any specified rule listed herein, however, is the most important rule of all:

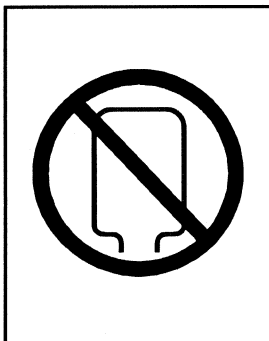
"USE COMMON SENSE".

A few minutes spent reading these instructions can make an operator aware of dangerous practices to avoid and precautions to take for his own safety and the safety of others.

A regular schedule of inspection of the RRC760 should be established and records maintained with special attention given to Hoses, Compressor Oil Level, Moisture Indicator, and Filters.

SAFETY PRECAUTIONS

- Recover, Recycle, and Charge R134a refrigerant only.
- Wear safety glasses and protective gloves. Refrigerant has a very low boiling point and can cause frostbite.
- Follow the RRC760 operating procedures sequentially to avoid prematurely disconnecting hoses or opening valves which may release refrigerant to the atmosphere.
- Do not expose the RRC760 to moisture or operate in wet areas.
- Use the RRC760 in locations with mechanical ventilation that provides at least four air changes per hour or locate the unit 18 inches above the floor.
- Hoses used with the RRC760 must have shutoff devices within 12 inches of the connection point to the system being serviced to minimize the introduction of non-condensable gases into the recycling unit and the release of refrigerant when being disconnected.
- Disconnect power before performing any maintenance or service on the RRC760.
- Avoid using an extension cord with the RRC760. If necessary, use a good condition, UL listed, 3-wire grounded, #14 AWG extension cord of the shortest possible length.
- Connect the RRC760 to a properly protected, grounded receptacle. Do not over load the circuit.
- Do not allow the RRC760 to remain unattended in the Charge Mode with power On. The Internal Cylinder Heater will be energized creating a high pressure condition.



NEVER TURN THE CYLINDER UP-SIDE-DOWN.

DO NOT CONNECT THE RRC760 TO THE LIQUID SIDE OF ANY A/C SYSTEM WITH A CAPACITY GREATER THAN 4 LBS.

REFRIGERANT IN A/C SYSTEMS HAVING LARGER CAPACITIES MUST BE RECOVERED FROM THE VAPOR SIDE ONLY.

NEVER CONNECT THE RRC760 TO THE LIQUID PORT OF A CYLINDER OF REFRIGERANT TO FILL THE RRC760 INTERNAL CYLINDER.

FAILURE TO FOLLOW THE ABOVE MAY CAUSE THE RRC760 COMPRESSOR TO FAIL AND VOID THE WARRANTY.

• • CAUTION • •

AVOID BREATHING A/C REFRIGERANT AND LUBRICANT VAPOR OR MIST.

EXPOSURE MAY IRRITATE EYES, NOSE AND THROAT.

TO REMOVE R134a FROM THE A/C SYSTEM, USE SERVICE EQUIPMENT CERTIFIED TO MEET THE REQUIREMENTS OF SAE J2210 (R134a RECYCLING EQUIPMENT).

IF ACCIDENTAL SYSTEM DISCHARGE OCCURS, VENTILATE WORK AREA BEFORE RESUMING SERVICE.

ADDITIONAL HEALTH AND SAFETY INFORMATION MAY BE OBTAINED FROM REFRIGERANT AND LUBRICANT MANUFACTURERS.

R134a HAS BEEN SHOWN TO BE NONFLAMMABLE AT AMBIENT TEMPERATURE AND ATMOSPHERIC PRESSURE. HOWEVER, RECENT TESTS UNDER CONTROLLED CONDITIONS HAVE INDICATED THAT, AT PRESSURES ABOVE ATMOSPHERIC AND WITH AIR CONCENTRATIONS GREATER THAN 60% BY VOLUME, R134a CAN FORM COMBUSTIBLE MIXTURES.

WHILE IT IS RECOGNIZED THAT AN IGNITION SOURCE IS ALSO REQUIRED FOR COMBUSTION TO OCCUR, THE PRESENCE OF COMBUSTIBLE MIXTURES IS A POTENTIALLY DANGEROUS SITUATION AND SHOULD BE AVOIDED.

UNDER NO CIRCUMSTANCES SHOULD ANY EQUIPMENT BE PRESSURE TESTED OR LEAK TESTED WITH AIR/R134a MIXTURES. DO NOT USE COMPRESSED AIR (SHOP AIR) FOR LEAK DETECTION IN R134a SYSTEMS.

PRE-CHARGING THE RRC760

A/C Systems requiring service often do not have a full charge of refrigerant. To avoid unnecessary repositioning of hoses it is recommended that the RRC760 be pre-charged until about 3 pounds of liquid refrigerant can be seen in the Internal Cylinder Sight Glass. The Sight Glass is visible through a slotted opening on the right side of the RRC760.

NOTE: As refrigerant is processed by the RRC760, temperature variations can cause vapor to change to liquid which may temporarily settle in various internal components.

If a known amount of refrigerant has been introduced into the RRC760 it may not all be seen in the Internal Charging Cylinder Sight Glass.

This is normal and nothing to be concerned about.

The refrigerant has not been lost.

To pre-charge the RRC760 follow these steps:

Turn Main Power Switch to OFF.

Connect a Service Hose between the Recycle Port of the RRC760 and the VAPOR PORT of a cylinder of clean refrigerant.

Observe that the embossed marking on the cylinder knob says **VAPOR** or **GAS**. Do not rely on color coding of valve knobs.



DO NOT TURN THE CYLINDER UP-SIDE-DOWN.

INTRODUCTION OF LIQUID INTO THE RRC760 MAY DAMAGE THE COMPRESSOR AND VOID THE WARRANTY.

Open Service Hose Valve and the refrigerant cylinder VAPOR valve.

Open the Recycle Valve on the RRC760 (Turn full counter-clockwise, 1/4 turn maximum).

Set Mode Selector to RECYCLE.

Turn Main Power Switch to ON.

The Compressor-On Light will illuminate and the RRC760 will recover and recycle refrigerant into the Internal Cylinder. Observe the liquid refrigerant level rise in the Internal Cylinder Sight Glass and when at the desired level (approximately 3 lbs.) close the valve on the refrigerant cylinder.

Allow the RRC760 to continue running until the Compressor-On Light goes off. This will evacuate the Service Hose.

When the Compressor-On Light goes off, close the Recycle Valve (Turn full clockwise, 1/4 turn maximum) and turn the Main Power Switch to OFF.

Close Service Hose Valve.

HINT: *GENTLE* heating of the cylinder of clean refrigerant by immersion in warm water or application of a heating blanket will speed the recovery process.

RECYCLE MODE

Connect a Service Hose from the Recycle Port of the RRC760 to the center port of a Gauge Manifold. **The Service Hose Valve should be on the end connected to the RRC760.**

Attach High and Low Gauge Manifold Hoses to the A/C system per the vehicle manufacturer's instructions.

NOTE: Field Service Couplings on the ends of Gauge Manifold Hoses are of a special design for R134a applications.

The valves have **LEFT HAND** threads which makes their operation opposite to that of most valves.

To Close... Turn Counter-clockwise

To Open... Turn Clockwise

The valves **MUST BE CLOSED** before connecting or disconnecting Field Service Couplings.

Open Gauge Manifold Valves.

Open Service Hose Valve.

Open (Turn Clockwise) High and Low Field Service Coupler Valves.

Open Recycle Valve on the RRC760 (Turn full counter-clockwise, 1/4 turn maximum).

Set Mode Selector to RECYCLE.

Turn Main Power Switch to ON.

The Power On Light and Compressor-On Light will illuminate. The Compressor and Condenser Fan will be heard operating as refrigerant is recovered from the vehicle.

The RRC760 will recover refrigerant from the A/C system until a vacuum is sensed. The Compressor will turn off and the Compressor-On Light will turn off. The Condenser Cooling Fan will continue to operate.

● **DO NOT TURN THE RRC760 OFF OR DISCONNECT HOSES** ●

A small quantity of Liquid refrigerant will probably remain in the vehicle A/C system. This liquid will vaporize (boil up) and increase the pressure in the system as the components again warm to ambient temperature. This can be detected by observing an increasing pressure reading on the RRC760 Inlet Pressure Gauge (Located on the right side while facing the front of the RRC760).

If pressure increases to a preset level, the RRC760 will again start to recover refrigerant. The Compressor will turn on and the Compressor-On Light will illuminate.

Allow this sequence to repeat until the Compressor-On Light remains off continuously for at least 2 minutes.

The recovery process is complete when the RRC760 Inlet Pressure Gauge indicates a stable vacuum.

NOTE: Several audible changes may be heard during the recovery and recycling process.

The oil return and non-condensable gas venting circuits will cycle periodically.

Refrigerant flow through check valves causes a "sizzle-type" sound.

These changing "noises" are normal and nothing to be concerned about.

Close Service Hose Valve, Gauge Manifold Valves, and Field Service Couplers.

Close the RRC760 Recycle Valve (Turn full clockwise, 1/4 turn maximum).

Turn Main Power Switch to OFF.

SLOWLY turn Oil Drain Pressurization Valve (Located below the Inlet Pressure Gauge) in a clockwise direction until the Inlet Pressure Gauge indicates approximately 5 PSIG. This will create a positive pressure in the Oil Drain Reservoir to enable any oil to drain during the next step.

Slowly open Oil Drain Valve (Located at the lower left side of the RRC760 as viewed from the back) to drain any oil which may have been removed from the A/C system. Close the valve as soon as the oil, if any, has drained.

Unless the A/C system had been overfilled, the RRC760 will not remove enough oil to make replenishment necessary.

Hoses can now be disconnected and the A/C system serviced.

CHARGE MODE

If the A/C repair caused the necessity of replacing a major component such as the Compressor or Accumulator, it is recommended that a deep vacuum be pulled on the system to remove any moisture.

A 10 AMP outlet is provided on the rear of the RRC760 for supplying power to a vacuum pump. The outlet is energized when the RRC760 Compressor is not running. The AUXILIARY Light indicates when the outlet is energized.

It's important that Air not be introduced into the A/C system during a Charging procedure. To avoid this situation, all hoses and the Gauge Manifold must be evacuated. Perform the following evacuation procedure prior to charging the A/C system:

Connect Red and Blue Hoses with Field Service Couplers to the high and low ports of the Gauge Manifold.

Connect Service Hose as follows:

Connect end without a Shut Off Valve to center port of the Gauge Manifold.

Connect end with a Shut Off Valve to Recycle Port of the RRC760.

NOTE: If the Service Hose is not connected as described above, the RRC760 will not charge. A Valve Core Depressor must be in the end of the hose connected to the RRC760.

Close Field Service Coupler Valves.

Open High and Low Gauge Manifold Valves.

Open Service Hose Valve.

Open RRC760 Recycle Valve (Turn full counter-clockwise, 1/4 turn maximum).

Set Mode Selector Switch to RECYCLE.

Turn Main Power to ON.

The RRC760 will remove any Air or refrigerant remaining in all hoses and the Gauge Manifold.

When the Compressor-On Light goes off, turn the Main Power Switch OFF.

Close RRC760 Recycle Valve (Turn full clockwise, 1/4 turn maximum).

Close Service Hose Valve and the Gauge Manifold Valves.

All Air has now been removed from the Hoses and Gauge Manifold and the Charge procedure can be performed.

Determine the refrigerant capacity of the A/C system to be charged. This data is usually printed on a tag located on the accumulator or under the hood of the vehicle. Convert this quantity to tenths of a pound or pounds and ounces, if necessary, for setting the RRC760 charge indicator.

The RRC760 Internal Cylinder Sight Glass has a sliding indicator to assist in setting the charge requirement.

NOTE: The Sight Glass on the Internal Cylinder is marked in "tenths of a pound" and "pounds and ounces".

Look at the top of the Sight Glass Label to determine which scale is preferred.

Do not confuse the graduation marks as being in grams.

The following will determine where to set the indicator prior to starting the charge mode:

$$(\text{RRC760 Liquid Level}) - (\text{A/C System Capacity}) = \text{Indicator Setting}$$

EXAMPLE: The level of liquid visible in the RRC760 Internal Cylinder Sight Glass is 7.4 lbs. and the A/C system capacity is 3.2 lbs. The following calculation results...

$$(7.4) - (3.2) = 4.2$$

Therefore, the sliding indicator should be set at 4.2 lbs. in this example. When the liquid level lowers to the 4.2 lb. mark, a charge of 3.2 lbs. will have been delivered

Connect Service Hose from the center port of the Gauge Manifold to the Charge Port of the RRC760. Attach the Gauge Manifold Field Service Couplers to the A/C system per the vehicle manufacturer's instructions.

Set Mode Switch to CHARGE.

Turn Main Power Switch to ON.

Open valve on Service Hose.

Open High Side Field Service Coupler.

● **DO NOT START THE VEHICLE'S ENGINE** ●

SLOWLY open Gauge Manifold **HIGH** Side Valve.

Refrigerant will flow into the high side of the vehicle A/C System. Closely monitor the liquid level as it lowers in the Internal Cylinder Sight Glass.

Close the Service Hose Valve as soon as the level drops to the sliding indicator.

Close the Gauge Manifold High Side Valve.

Turn Main Power Switch to OFF.

The vehicle can now be started and the A/C system checked by monitoring the Gauge Manifold pressure indications.

Close all valves before disconnecting hoses.

NOTE: The preceding is the recommended method of charging with the RRC760.

Some vehicles manufacturers may specify connecting only to the Low Side of the A/C System. Always follow their procedures. The above instructions would have to be modified accordingly.

HOW THE RRC760 RECOVERS & RECYCLES REFRIGERANT

Following is a description of the purpose and performance characteristics of the components within the RRC760. The items are discussed in the order as seen by refrigerant as it flows through the unit from the Recycle Port to the Charge Port.

Refer to the Flow and Circuit Diagrams in the Appendix.

RECYCLE VALVE

Turned On (Full Counter-clockwise) during the Recycle Mode of Operation.

INLET PRESSURE GAUGE

Indicates pressure or vacuum levels at the Recycle Port.

SUCTION ACCUMULATOR

Vapor and/or saturated liquid refrigerant from the vehicle A/C system enter the Suction Accumulator from the Recycle Port.

Refrigerant, still in the liquid state, will expand and vaporize in the Suction Accumulator due to the increase in volume.

As the refrigerant changes direction of travel as it passes through the Suction Accumulator, oil droplets (with greater mass than the refrigerant vapor) are slung towards the container walls where they collect and migrate to the bottom.

This oil is removed from the Suction Accumulator through the Oil Drain Valve.

The Low Pressure Switch, mounted on the Suction Accumulator, opens when the required vacuum is detected. This stops the recycle process.

A Thermostatically Controlled Heater in an Oil Reservoir at the bottom of the Suction Accumulator (Patent Pending), vaporizes any refrigerant absorbed by the oil. This refrigerant is then recycled by the RRC760 instead of vaporized into the atmosphere during the oil draining procedure.

ACID FILTER

Refrigerant enters the Acid Filter through a port on the top and travels through a solid desiccant core where organic and volatile contaminants are filtered, moisture is absorbed, and acid is removed.

Refrigerant reacts with water to form hydrofluoric acid which is corrosive and contaminates oil. Acid removal is important to protect the Compressor and other RRC760 components.

CHECK VALVE (1 PSI)

The Check Valve permits forward refrigerant flow when the output pressure from the Acid Filter is 1 lb. or greater than pressure at the output side of the Check Valve. The primary purpose of this Check Valve is to prevent reverse flow of oil to the Acid Filter from the Oil Separator during the Oil Return Cycle.

SUCTION SHUTDOWN SOLENOID VALVE S-11

Prevents migration of refrigerant to the Compressor when the RRC760 is not operating.

SUCTION PRESSURE REGULATOR

Limits refrigerant flow, during high flow rate conditions, to maintain an even rate of processing by the Filter-Drier.

This valve is set at the factory and is not adjustable.

COMPRESSOR

Creates a vacuum on the recycle side of the RRC760 and pumps to the filtering and condensing section.

A sight tube is mounted on the Compressor for monitoring the oil level.

HIGH PRESSURE SWITCH

Stops the Recycling process in the event of excessive Compressor discharge pressure.

OIL SEPARATOR

Oil collects in the bottom of the canister and is recirculated to the Compressor via Solenoid Valve S12. A timer initiates this oil return for 10 seconds at a rate of once every 180 seconds.

SERVICE VALVES

Two Service Valves (One on either side of the Filter-Drier) are used during filter changes as described in the Maintenance Section of this manual.

FILTER-DRIER

Moisture removal is very important due to the formation of acids which result when water and refrigerant mix.

Effectiveness of the Filter-Drier must be checked regularly after the initial 20 hours of operation. Replace the Filter-Drier if the Moisture Indicator is continuously "bright yellow" during a Recycling operation. This indicator may show yellow when the RRC760 is new and immediately after a filter change.

CONDENSER (COOLED BY FAN)

The high temperature, high pressure refrigerant vapor is cooled by air moving over the finned Condenser. The vapor condenses into liquid form as it is cooled.

ANTI-MIGRATION SOLENOID (S9)

Prevents flow of refrigerant from the Condenser to the Internal Cylinder during the Charging Mode of operation.

MOISTURE INDICATOR

As liquid refrigerant flows through the Moisture Indicator, an H₂O-sensitive paper will change from green/yellow to "bright yellow" if the moisture content is too high. This indicator may show yellow when the RRC760 is new and immediately after a filter change.

CHECK VALVE (1 PSI)

Prevents flow of refrigerant from the Internal Cylinder to the Condenser during shut down.

INTERNAL CYLINDER

Liquid refrigerant flows vertically upward and discharges from the entry tube in the Internal Cylinder. This separates any non-condensable gases from the refrigerant. The level of liquid refrigerant which collects in the Internal Cylinder can be viewed in the sight glass.

A float valve in the Internal Cylinder causes the Internal Cylinder Full Light to illuminate and stops the Recycling process when the liquid refrigerant level reaches approximately 8 lbs.

A heating element mounted in the lower end plate of the Internal Cylinder causes a pressure increase to speed the transfer of refrigerant into the vehicle A/C system during the charging cycle.

DIFFERENTIAL PRESSURE SWITCH (DPS)

The venting of non-condensable gases (Air) is performed by the DPS. A refrigerant/Air mixture will exhibit a higher pressure than pure refrigerant at equal temperatures. Pressure inside a sealed bulb of pure refrigerant is compared to the refrigerant/Air mixture in the Internal Cylinder.

When the Air concentration in the Internal Cylinder reaches a preset amount, the DPS activates Non-condensable Gas Discharge Solenoid (S8) and deactivates Anti-migration Solenoid (S9), allowing a slow and controlled release of Air.

CHARGING SOLENOID VALVE (S10)

The Charging Solenoid Valve is energized when the RRC760 is in Charge Mode. Liquid refrigerant flows to the A/C system via the Charge Port (With valve core).

SCHEDULED MAINTENANCE

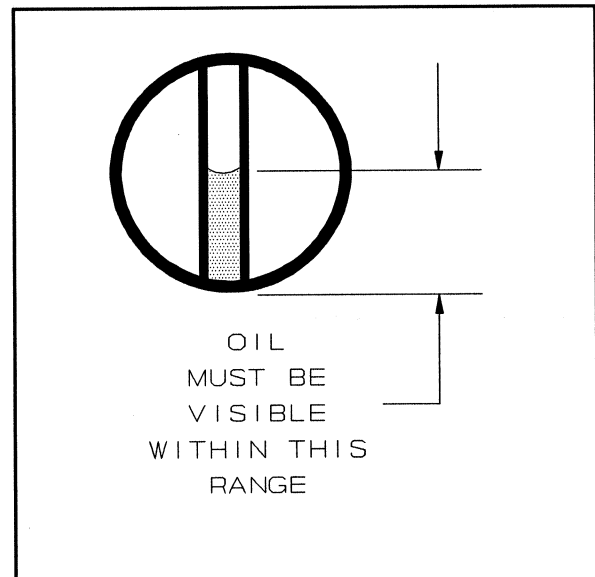
BEFORE EACH USE...

Check the oil level in the Compressor *DAILY* before using the RRC760. The Oil Level Sight Tube is visible through a cut-out in the left side of the black Compressor Cover at the bottom of the machine.

The oil level should be visible in the cut-out and within the range indicated in the illustration.

If oil is not visible or is above the middle of the cut-out call the Warranty Repair Number:

800-468-2321



AFTER EVERY 10 HOURS OF OPERATION...

Clean the Condenser to maintain high efficiency performance of the RRC760. Disconnect power and remove the Compressor Compartment Cover and blow compressed air through the cooling fins of the Condenser to remove any debris. It may be necessary to use a soft brush if the fins are excessively dirty.

Do not bend the fins on the Condenser coil. Air flow will be restricted and cause damage to the RRC760. Replace the Compressor Compartment Cover before applying power to the RRC760.

AFTER EVERY 75 HOURS OF OPERATION ... OR IF MOISTURE INDICATOR STAYS "BRIGHT YELLOW" AFTER 20 HOURS OF OPERATION:

Replace Filter-Drier and Acid Filter.

Refrigerant must be recovered from both filters prior to any maintenance procedures.

This feature has been designed into the RRC760 to enable quick and easy filter changes.

The following section describes how to recover refrigerant from the filters prior to disconnection.

RECOVERING REFRIGERANT FROM FILTERS

Recover refrigerant from filters prior to removal by following these steps:

- Close the Recycle Valve (Fully clockwise, 1/4 turn maximum).
- Disconnect power from RRC760.
- Remove Main Cabinet Cover.
- Locate two Service Valves (Bottom left side of the Main Cabinet). These valves have yellow handles.
- Remove foam tube and move both handles down to the SERVICE position. A label mounted nearby indicates with an arrow this horizontal position.
- Set Mode Selector to RECYCLE.
- Connect power to RRC760 and turn Main Power Switch to ON.
- Let RRC760 run until the Compressor-On Light turns off. The Inlet Pressure Gauge should indicate a slight vacuum. All refrigerant has now been recovered from the filters.
- Disconnect power from the RRC760

FILTER-DRIER MAINTENANCE

The Filter-Drier is mounted on the back wall inside Main Cabinet.

Recover refrigerant from Filter-Drier as explained previously in RECOVERING REFRIGERANT FROM FILTERS section.

Disconnect Flare Adaptor Fittings at top and bottom of Filter-Drier.

Remove mounting nuts and remove Filter-Drier.

Remove the black insulation and install on new Filter-Drier.

Install new Filter-Drier using the nuts removed earlier.

Connect Flare Adaptor Fittings to top and bottom of Filter-Drier. Tighten 1/5 turn past finger-tight.

Move Service Valve handle to the HORIZONTAL position.

Check for leaks and repair as required.

Replace Main Cabinet Cover.

ACID FILTER MAINTENANCE

Recover refrigerant from Acid Filter as explained previously in RECOVERING REFRIGERANT FROM FILTERS section.

Disconnect top flare fitting and rotate the Acid Filter out of the lower flare union.

Install new Acid Filter reversing the above steps. Flow direction arrow should point down.

Move Service Valve handle to the HORIZONTAL position.

Check for leaks and repair as required.

Replace Main Cabinet Cover.

PROBLEMS & SOLUTIONS

On rare occasion the RRC760 may seem to be performing differently or not at all. Experience has shown that varying operating conditions can affect the performance characteristics of the RRC760. The temperature of the vehicle A/C System will affect how the RRC760 performs.

Following are typical problems with explanations of the possible cause and solution.

PROBLEM: My RRC760 worked fine all last Summer. I got it out today for the first service job this Spring and it is very slow in evacuating the system.

SOLUTION: Today's Spring temperature may be much lower than the average temperatures during the summer months. Maybe the vehicle was brought in from outside where the temperature is very low.

The refrigerant in the vehicle will not be under as high a pressure at lower temperatures and the RRC760 will take longer to draw a vacuum. More cycles may be required to completely recover the refrigerant.

PROBLEM: I put 5 lbs. of refrigerant into the RRC760 using the Recycle Mode. When I checked the sight glass on the Internal Cylinder, there was less than 5 lbs. I lost Refrigerant. The unit must leak.

SOLUTION: Due to temperature changes, some refrigerant may condense into liquid form and stay in tubes and other components in the circuit preceding the Internal Cylinder. This is normal and will explain why all refrigerant is not visible in the sight glass.

PROBLEM: I can not get the RRC760 to draw a vacuum as indicated on the Low Side Manifold Gauge.

SOLUTION: With the unit running in Recycle Mode and the Recycle Valve closed (full Clockwise), observe the reading on the Inlet Pressure Gauge on the side of the RRC760. If a slight vacuum is read when the Compressor-On Light goes off, check the charging hoses and Gauge Manifold for possible obstructions.

PROBLEM: When I try to fill the Internal Cylinder from an auxiliary cylinder of clean refrigerant, the RRC760 is really slow or shuts down.

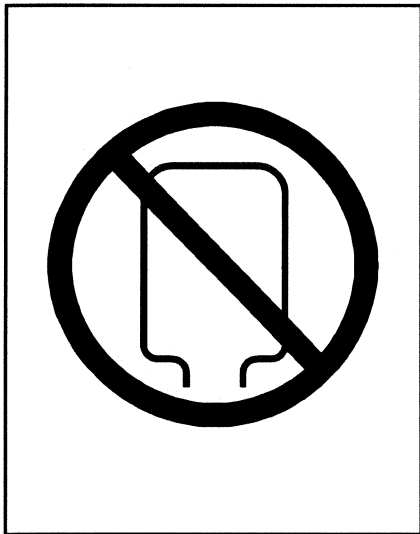
SOLUTION: The auxiliary cylinder will cool due to the vaporization of refrigerant. This causes the pressure to decrease.

Place the cylinder in a bucket of warm water. This will aid in increasing the speed of recycling by the RRC760.

PROBLEM: I turned a 30 lb. cylinder of new refrigerant up-side-down to pre-charge the Internal Cylinder with liquid. The Internal Cylinder didn't fill and now the RRC760 won't recover from an A/C system.

SOLUTION: The RRC760 has been overloaded with liquid refrigerant (See Safety Precaution Section at the beginning of this manual).

... WARNING ...



IF A CYLINDER IS TURNED UP-SIDE-DOWN, THE RRC760 WILL OVERFILL WITH LIQUID REFRIGERANT. THIS OVER FILLS THE SUCTION ACCUMULATOR WITH LIQUID.

FROST ON THE OIL DRAIN ON THE REAR OF THE RRC760 IS A GOOD INDICATION OF THIS OCCURRENCE.

THIS SYMPTOM IS CAUSE FOR CONCERN AS LIQUID REFRIGERANT WILL BE FORCED INTO THE COMPRESSOR.

THIS CAN DESTROY THE COMPRESSOR AND WILL VOID THE WARRANTY.

The safest method to remove the excess liquid which has collected in the Suction Accumulator is to drain it from the Oil Drain on the back of the RRC760 as follows:

Draw a deep vacuum (25 to 29 In. Hg.) on an empty cylinder and connect it to the Oil Drain. Open the cylinder valve and the Oil Drain valve.

Close the valves and disconnect the cylinder after the liquid has been emptied into the cylinder. This refrigerant can now be recycled by the RRC760 following normal recycling procedures.

PROBLEM: My Compressor On Light went out with a lot of pressure still left in the A/C system I'm recovering from.

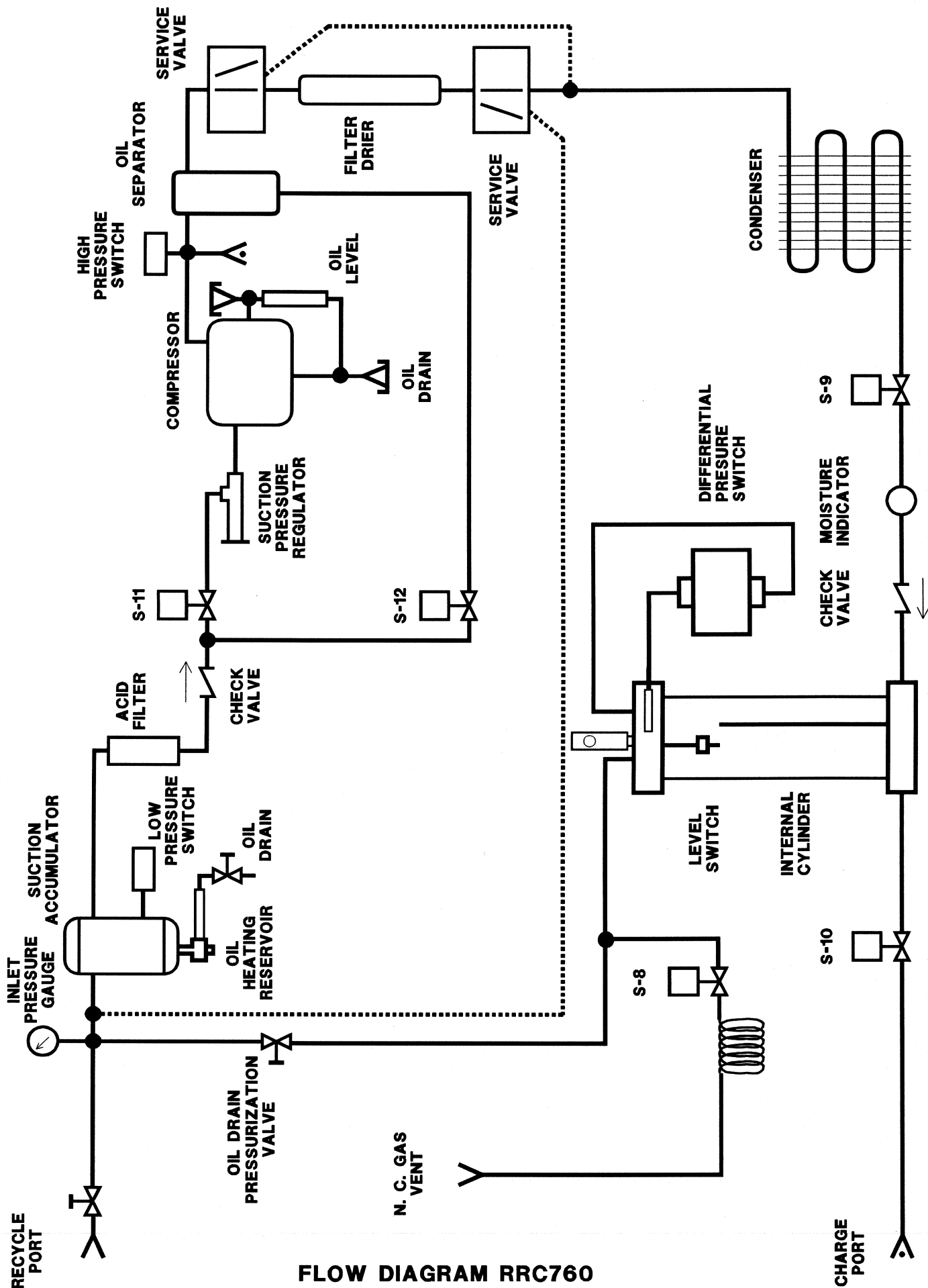
SOLUTION: Large amounts of Non-Condensable Gases may cause the Compressor to momentarily shut off before the RRC760 Inlet Pressure Gauge indicates a vacuum. This is a normal part of the venting process as refrigerant flow into the Internal Cylinder is stopped during the venting of Non-Condensable Gases.

The Compressor will re-start a few moments after this venting stops.

PROBLEM: The Oil Drain Valve is warm/hot to the touch.

SOLUTION: The thermostatically controlled Oil Heater is mounted in a reservoir next to the Oil Drain Valve. The temperature setting is approximately 110 degrees. This can seem quite warm, but is nothing to be concerned about.

If the above suggested solutions do not solve the problem, call 800-468-2321 and one of our technicians will help diagnose the cause. Please have the Serial Number and hour meter reading available for reference.



FLOW DIAGRAM RRC760

